RabbitCore™ RCM2300 Microprocessor Core Module

RabbitCore RCM2300:

• **Board Size:** 1.15" x 1.60" x 0.55" (29 mm x 41 mm x 14 mm) • **Input Voltage:** 4.75~5.25VDC • **Current:** 108 mA at 5VDC • **Processor:** Rabbit 2000 • **General Purpose I/O:** 29 parallel I/O lines grouped in five 8-bit ports (shared with serial ports) • **Memory, I/O Interface:** 4 address lines, 8 data lines, I/O Read-Write (extra address line and Buffer Enable via separate connections) • **Additional Digital Inputs:** Startup mode, reset • **Additional Digital Outputs:** Status, reset • **Clock:** 22.1 MHz • **SRAM:** 128K • **Flash:** 256K • **Timers:** Five 8-bit timers, one 10-bit timer. Five timers are cascadable in pairs • **Serial Ports:** 4 CMOS-compatible ports. Max asynchronous baud rate is 691,000 bps, maximum synchronous is 5.53 Mbps. Two ports are configurable as clocked ports • **Slave Interface:** Allows the RCM2300 to be used as an intelligent peripheral device slaved to a master processor

Additional Features: Watchdog/supervisor, time/date clock, backup battery circuitry, and connection for user-supplied battery

RabbitCore RCM2300 Development Kit

Digi-Key Part No. 316-1015-ND (101-0480) Only **1691.90**

Kit includes RCM2300 core module (256K Flash, 128K SRAM), Getting Started manual with schematics, DC power supply (U.S. only), prototyping board, PC serial cable, and complete Dynamic C SE software development system (not a trial version) and complete documentation on CD-ROM.

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM2300	316-1089-ND	357.08	20-101-0453

RabbitCore™ RCM3200 Microprocessor Core Module

Designing with RabbitCores:

RabbitCores are powered by high-performance 8-bit Rabbit microprocessors with extensive integrated features and a C-friendly instruction set designed for use with the Dynamics C® development system. Embedded systems using the Ethernet RabbitCore module can be controlled and monitored (as well as programmed and debugged when using appropriate accessory hardware) across any network or the Internet.

Programming the RCM3200:

Programs are developed using our industry-proven Dynamics C software development system (SE version included in low-cost development kits). An extensive library of drivers and sample programs is provided, along with royalty-free TCP/IP stack with source.

RabbitCore RCM3200:

• **Board Size:** 2.73" x 1.85" x 0.86" (69 mm x 47 mm x 22 mm) (2.73" x 1.85" x 0.48" (69 x 47 x 12mm) for 3220) • **Power:** 3.15~3.45VDC • **Current:** 255 mA at 3.3V • **Processor:** Rabbit 3000 at 44.2 MHz • **General Purpose I/O:** 52 digital I/O (44 configurable I/O, 4 fixed inputs, and 4 fixed outputs) • **Additional Digital Inputs:** 2 Startup Mode, Reset in • **Additional Digital Outputs:** Status, Reset out • **Real-Time Clock:** Yes • **SRAM:** 512K program + 256K data • **Flash:** 512K • **Timers:** Ten 8-bit timers (6 cascadable from the first) and one 10-bit timer with 2 match registers • **Serial Ports:** 6 CMOS-compatible: 6 configurable as asynchronous (with IrDA), 4 as clocked serial (SPI), and 2 as SDLC/HDLC (with IrDA), 1 asynchronous clocked serial port dedicated for programming, Support for MIR/SIR IrDA transceiver • **Slave Interface:** Allows use as master or intelligent peripheral with Rabbit-based or other master controller

Additional Features:

Ethernet Port for 3200 series only, Watchdog/Supervisor, Pulse-Width Modulators, Quadrature Decoder and Backup Battery

RabbitCore RCM3200 Low-Cost Development Kit

Digi-Key Part No. 316-1023-ND (101-0552) Only **2967.20**

Kit includes RCM3200 RabbitCore, Getting Started manual, DC power supply (U.S. only), prototyping board, Serial Cable for Programming and debugging, and complete Dynamic C SE software development system (not a trial version) and complete documentation on CD-ROM.

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3200	316-1097-ND	756.68	20-101-0520
RCM3220	316-1098-ND	671.66	20-101-0522

RabbitCore™ RCM3600 Core Module

Features:

• 3.3V operation • Powerful Rabbit 3000 processor • 256K (3610) ~ 512K (3600) Flash Memory • 128K (3610) ~ 512K (3600) SRAM • 33 digital I/O • 4 Serial Ports • Size: 2.11" x 1.23" (54mm x 31mm)

Design Advantages:

• Low Cost Solution • Ready made platform for easy design implementation • Compact Size • Dynamic C® development environment for real-time developing and debugging • Fast performance for math, Logic, and I/O

RabbitCore RCM3600 Development Kit

Digi-Key part number 316-1037-ND (101-0678) Only 2542.10

The RCM3600 Development Kit includes RCM3600 core module, proto board, AC Adapter (U.S. Only), Programming Cable, Complete Dynamic C software development system (not a trial version) with documentation on CD-ROM and a bag of accessory parts for use on the proto board.

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3600	316-1102-ND	416.60	20-101-0672
RCM3610	316-1103-ND	382.59	20-101-0673

RabbitCore™ RCM3370 Core Module

The RCM3370 modules present a new form of embedded flexibility with removable xD-Picture Cards™. Supporting on-board 16 MB NAND Flash as well as memory cards of up to 128 MB, this RabbitCore is ideal for large data applications requiring low-power operation.

Features:

• Powerful Rabbit 3000 microprocessor @ 44 MHz clock • 10/100 Base-T Ethernet connectivity • 3.3V operation • 512K Flash/512K Program + 512K data SRAM • 49 digital I/O and 5 serial ports (RCM3300/3310) • 52 digital I/O and 6 serial ports (RCM3370) • Board size 1.85" x 2.73" x 0.86" (47mm x 69mm x 22mm)

Design Advantages:

• Ideal for network enabling security and access systems, home automation, HVAC systems, and industrial controls

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3370	316-1045-ND	833.20	101-0950

RabbitCore™ RCM3700 Core Module

Features:

• 512K Flash (256K for 3710) • 512K SRAM (128K for 3710 and 256K for 3720) • 3.3V operation • Powerful Rabbit 3000 processor • 33 digital I/O • 4 Serial Ports

Design Advantages:

• Low Cost Solution • Ready Made platform for easy design implementation • Compact Size • Dynamic C® development environment for real-time developing and debugging • Fast performance for math, Logic, and I/O

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3700	316-1104-ND	501.62	20-101-0674
RCM3710	316-1105-ND	484.61	20-101-0675
RCM3720	316-1107-ND	467.61	20-101-0961

RabbitCore RCM3700 Development Kit

Digi-Key part number 316-1038-ND (101-0680) Only 2542.10

The RCM3700 Development Kit includes RCM3700 core module, proto board, AC Adapter (U.S. Only), Programming Cable, Complete Dynamic C software development system (not a trial version) with documentation on CD-ROM and a bag of accessory parts for use on the proto board.

RabbitCore Wi-Fi Add On Kit

Digi-Key part number 316-1068-ND (101-0999) Only 1695.81

The Wi-Fi Add On Kit includes Interposer Board (boards are not interchangeable between RCMs with different footprints), CompactFlash Wi-Fi Board, LinkSys Wi-Fi CompactFlash Card, 20-pin ~ 20-pin IDC header connection ribbon cable, 10-pin IDC header to DE9F serial cable, Sample programs and software related specifically to the Wi-Fi Add-On Kits on CD, Dynamic C upgrade to 9.21 or higher on CD, Getting Started instruction and Miscellaneous connection and mounting hardware including standoffs, if necessary

PowerCore Flex™ 3800/3810

With available on-board power supply, analog features, and the fastest Rabbit 3000 microprocessor the PowerCore bridges the gap between microcontrollers and single board computers. With the introduction of the PowerCore, Rabbit Semiconductor has added over 1000 new core modules to its product line through FLEXible manufacturing. Featuring customizable options such as microprocessor speed, power supply, memory, analog features and Ethernet capability, PowerCore Rabbit Core Modules can be customized at the Rabbit Semiconductor website via the user-friendly On-Line Flex Configurator Tool.

Features: • Clock speed up to 51.6MHz • On-board Power Supply (10VAC ~ 60VAC, 8VDC ~ 43VDC) • On-board analog (AC Crossover, ramp generator, temperature sensor) • 512K Flash • Maximum 1MB SRAM (512K code/512K data) • Maximum 1MB Serial Flash • 39 general-purpose I/O • 10/100 Compatible Ethernet

PowerCore RCM3800 Development Kit

Digi-Key part number 316-1070-ND (101-1016) Only 1436.84

Jumpstart your evaluation and design efforts with a development kit. The kit includes a PowerCore, prototyping board, serial cable for programming and debugging, Dynamic C with royalty-free TCP/IP stack and source, Getting Started Manual, AC Transformer and miscellaneous parts and connectors.

PowerCore RCM3810 Development Kit

Digi-Key part number 316-1071-ND (101-1018) Only 1173.28

Jumpstart your evaluation and design efforts with a development kit. The kit includes a PowerCore, prototyping board, serial cable for programming and debugging, Dynamic C with royalty-free TCP/IP stack and source, Getting Started Manual, AC Transformer and miscellaneous parts and connectors.

PowerCore Flex Kit

Digi-Key part number 316-1064-ND (101-0956) Only 841.70

Includes our Dynamic C development system and complete documentation on CD-ROM, a demo board with 4 LED's, 4 switches and buzzer, serial cable for programming and debugging, Getting Started manual and AC adapter

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3800	316-1108-ND	1130.77	20-101-1006
RCM3810	316-1109-ND	637.65	20-101-1007
LCD/Keypad Panel Mount	316-1116-ND	841.70	20-101-0541

RabbitCore™ 4000/4100/4200 Series

The Rabbit 4000 is fast, running at up to 60MHz, with compact code and direct software support for 16-bit memory devices. It operates at 3.3V I/O standard or can be set to 1.8V for lower power. The Rabbit 4000 boasts 6 serial ports with IrDA, 40+ digital I/O, quadrature decoder, PWM outputs, pulse capture and measurement capabilities, battery-backable real-time clock, glueless memory and I/O interfacing and ultra-low power modes.

The RCM4100 series is the first of the next generation core modules to take advantage of the new Rabbit 4000 microprocessor.

RCM4100 Features: • Rabbit 4000 microprocessor@ 58.98MHz (29.49MHz for 4110) • 512K Flash • 512K data SRAM (256K for 4110) • Program-Execution Fast SRAM: 512K (None for 4110) • 40 parallel I/O (29 for 4100) • 6 high-speed, CMOS-compatible Ports • Ten 8-bit timers, one 10-bit timer and one 16-bit timer • Power: 125mA (typical) @ 3.3V (65mA (typical) @ 3.3V for 4110) • Board Size: 1.41" x 1.88" x 0.49" (36 x 48 x 12mm)

The RCM4200 RabbitCore modules are equipped with 10/100 Ethernet connectivity, combined with 4Mbytes or 8Mbytes serial flash memory storage for intensive communication and data logging applications. At the heart of the RCM4200 is the Rabbit 4000 microprocessor which features a clock speed of up to 58.98MHz. The rabbit 4000 boasts and additional 500+ new operational code instructions that increases the processing efficiency, from its predecessor the Rabbit 3000 The RCM4200 RabbitCore modules are easily interchangeable with other RCm4xxx based products due to electrical and functional compatibility.

RCM4200 Features: • Rabbit 4000 microprocessor @ 58.98MHz (29.49MHz for 4210) • Spectrum spreader for reduced EMI • Ethernet Port: 10/100Base-T, RJ-45, 3 LEDs • 512K (8-bit) SRAM and Flash • Serial Flash Memory: 8Mbytes (4 Mbytes for 4210) • 25 paralled digital I/O (35 paralled digital for 4210) • A/D: 12 bits • Up to 4 serial ports (up to 5 for 4210) • Real Time Clock • Ten 8-bit timers, one 10-bit timer and one 16-bit timer • Watchdog/Supervisor • Power: 240mA (typical) @ 3.3V (200mA @ 3.3V for 4210) • Board Size: 1.84" x 2.42" x 0.84" (47 x 61 x 21mm)

All Development Kits include a core module, a development board with prototyping are, Dynamic C 10 development system and complete documentation on CD-ROM, serial cable for programming and debugging, Getting Started manual and AC adapter (U.S./Canada only).

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
CPU RABBIT 4000	316-1078-ND	106.28	20-668-0024
RCM4100	316-1121-ND	637.65	20-101-1105
RCM4120	316-1122-ND	544.13	20-101-1154
RCM4200	316-1124-ND	926.72	20-101-1131
RCM4210	316-1125-ND	841.70	20-101-1132
RCM4010 Development Kit	316-1077-ND	2031.98	101-1114
RCM4100 Development Kit	316-1123-ND	1946.96	101-1157
RCM4110 Development Kit	316-1076-ND	1691.90	101-1101
RCM4200 Development Kit	316-1126-ND	2287.04	101-1155

RabbitCore™ 3360/3365/3375 Series

The RCM3360/RCM3365/RCM3375 modules present a new form of embedded flexibility with removable xD-Picture Cards™. Supporting on-board 16 MB NAND Flash as well as memory cards of up to 128 MB, this RabbitCore is ideal for large data applications requiring low-power operation. (xD-picture card socket only for 3375 Series)

Features:

• Powerful Rabbit 3000 microporcessor @ 44.2MHz • Ethernet Port: 10/100Base-T, RJ-45, 3 LEDs • 3.3V operation • 512K Flash/512K Program + 512K data SRAM • 49 digital I/O and 5 serial ports • 52 digital I/O and 6 serial ports • Board Size: 1.85" x 2.73" x 0.86" (47 x 69 x 22mm)

RabbitCore RCM3365 Development Kit

Digi-Key Part No. 316-1074-ND (101-1053) Only 3392.30

The RCM3365 Development Kit includes RCM3365 microprocessor core module, development board with prototyping area, 2 CDs – Dynamic C and Dynamic FAT File System module – with complete product documentation on disk, 32MB *xD-Picture Card*™, Screwdriver and Ethernet Cable, serial cable for programming and debugging, Getting Started manual and AC adapter (U.S./Canada only).

RabbitSys™ Development Kit

Digi-Key Part No. 316-1130-ND (101-1088) Only 3477.32

Features:

• Remote Firmware and Application Update Mechanism • Remote Debugging and Monitoring Systems • Software-Crash Recovery System • Enhanced Memory Protection Features • Event Handler and Corrective Action Operations • Console and Preloaded Device Drivers

Jumpstart your evaluation and design efforts with a complete development kit, which includes RCM3365 RabbitSys Core Module, Prototyping Board, xD-Picture Card, Dynamic C 9.3x to support RabbitSys, RabbitSys CD, FAT File v.2.11, Cables and Accessories, Getting Started Manual and Power Supply (U.S./Canada only).

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3365	316-1111-ND	892.71	20-101-1051
RCM3375	316-1112-ND	833.20	20-101-1055

RabbitCore™ 3305/3310/3315 Series

Features:

• 3.3V Operation • Powerful Rabbit 3000A microprocessor • 512K Flash/512K SRAM • 8 Mbyte Serial Flash for 3305 and 4 Mbyte for 3315 • 49 digital I/O • 5 Serial Ports

Design Advantages:

• Ready-Made Platforms for quick design to market • Compact size • Dynamic C® development environment for real-time developing and debugging • Fast performance for math, logic and I/O

RabbitCore RCM3305 Development Kit

Digi-Key Part No. 316-1129-ND (101-1069) Only 3392.30

The RCM3305 Development Kit includes RCM3305 microprocessor core module, development board with prototyping area, Dynamic C development system and complete documentation on CD-ROM, serial cable for programming and debugging, Getting Started manual and AC adapter (U.S./Canada only).

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3305	316-1113-ND	1011.74	20-101-1067
RCM3315	316-1114-ND	841.70	20-101-1068

RabbitCore™ 3750 Series

The RCM3750 RabbitCore mounts directly onto a user-designed motherboard using a single dual-row IDC header and can interface with all CMOS-compatible digital devices. Digital I/O (shared with serial ports), power and other signals are directly routed to the motherboard. Built-In low EMI features, including a clock spectrum spreader, practically eliminate EMI problems, which helps OEMs pass European CE and other regulatory RF emissions tests.

Features:

• Rabbit 3000 microprocessor at 22.1MHz • 512K Flash and SRAM • 1MB Serial Flash • 33 digital I/O (31 configurable I/O and 2 fixed outputs) • Four 3.3V CMOS-compatible Serial Ports • Real-Time Clock • Ten 8-bit timers • Watchdog/Supervisor • 4 PWM output channels • Input: 4.75 ~ 5.25VDC, 175mA @ 22.1MHz; 150mA @ 11.05MHz • Board Size: 2.95" x 1.20" x 0.89" (75 x 30 x 23mm)

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3750	316-1110-ND	629.15	20-101-1028